



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

# SCIENCE

FRIDAY, DECEMBER 27, 1912

THE ARTIFICIAL RIPENING OF BITTER  
FRUITS<sup>1</sup>

## CONTENTS

*The Artificial Ripening of Bitter Fruits:*  
PROFESSOR FRANCIS E. LLOYD ..... 879

*University Registration Statistics:* PROFES-  
SOR RUDOLF TOMBO, JR. .... 887

*The Fur Seal Census:* GEORGE ARCHIBALD  
CLARK ..... 894

*The Fur Seal Mortality of the Pribilof Rock-*  
*eries in the Absence of Pelagic Sealing:* M.  
C. MARSH ..... 897

*Memorial of a Centenary* ..... 898

*Scientific Notes and News* ..... 900

*University and Educational News* ..... 902

### Discussion and Correspondence:—

*Philippine Sharks:* DR. H. M. SMITH. *Ber-*  
*ardius Bairdii in Japan:* DR. ROY C. AN-  
DREWS. *On Citing the Types of New*  
*Genera:* PROFESSOR T. D. A. COCKERELL.  
*In the Interests of Better Speaking:*  
X. Y. Z. .... 902

### Scientific Books:—

*Moore's Principles of Microbiology:* PRO-  
FESSOR F. P. GORHAM. *Conn's Biology:*  
M. M. *Franz's Handbook of Mental Ex-*  
*amination Methods:* F. L. W. *Ries on*  
*Building Stones and Clay Products:* DR.  
GEO. P. MERRILL ..... 904

### Special Articles:—

*The Relationships of the Chestnut Blight*  
*Fungus:* DR. G. P. CLINTON ..... 907

*The Convocation Week Meeting of Scientifico*  
*Societies* ..... 914

MSS. intended for publication and books, etc., intended for  
review should be sent to Professor J. McKeen Cattell, Garrison-  
en-Hudson, N. Y.

THIS subject has been chosen not only be-  
cause of a certain intrinsic interest which  
I trust will presently be admitted, but be-  
cause also it serves to illustrate the im-  
portant contention that the problems of  
pure and applied science go back for their  
solution to the same fundamental prin-  
ciples. It is true that empiricism has  
solved, in a measure, many practical prob-  
lems, and that, indeed, science has grown  
out of empiricism. But science in her turn  
leads more rapidly and surely to the goal  
which is sought, for the simple reason that  
she explains why things happen as they do.  
For a single and almost overworked ex-  
ample, the ancients knew that peas and  
clovers enriched the soil, and this knowl-  
edge led to the practise of rotation in the  
planting of crops. But it is very recent  
knowledge that this behavior is due to the  
peculiar relations of certain bacteria to a  
limited group of the higher plants known  
collectively as the legumes, by which the  
free nitrogen of the air is made available  
to the latter. The economic salvation of  
immense areas, yet to be accomplished, may  
now be compassed with this knowledge—a  
very practical outcome. On the other  
hand, the understanding of the nitrogen  
relations of plants has stimulated the chem-  
ist to discover a method, and if possible an  
economical method, of fixing atmospheric  
nitrogen, so that this vast storehouse of ma-  
terial may be rendered more available, the  
solution of which problem could not by  
any chance have been attained except by

<sup>1</sup> The university lecture, October 8, 1912.